

MONTHLY AIR QUALITY REPORT FOR FEBRUARY 2007

AOI COLOR SCALE

GOOD	MODERATE	UNHEALTHY FOR SENSITIVE GROUPS	UNHEALTHY
0-50	51-100	101-150	151-200

Calendar of maximum AQI values & their corresponding color for February 2007*

*Preliminary data

SAMPLE POLLUTANT REPORTING BOX

1	O3	CO
(day of month)	PM10	PM2.5

	SU	IN		MC	N		TU	IES		WE	ED		TH	U		FR	:1		SA	AT
												1	33	17	2	34	31	3	30	33
												_	28	48		66	62		51	95
4	34	39	5	33	33	6	32	32	7	32	34	8	34	38	9	30	36	10	28	41
7	40	80	,	77	63	U	70	58	,	74	64	0	70	63		90	63	10	61	60
11	23	30	12	30	22	13	37	23	14	35	14	15	30	26	16	25	31	17	35	38
11	56	61	12	51	50	13	45	48	14	28	45	13	57	61	10	61	63	17	46	51
18	34	24	19	32	26	20	32	26	21	34	31	22	39	32	23	35	18	24	34	20
10	36	44	19	31	41	20	27	53	21	45	60	22	53	60	23	63	37	24	34	42
25	38	25	26	38	23	27	37	25	28	38	10									
23	26	55	20	53	43	27	69	37	20	76	32									

Calendar of High Pollution Advisories and Health Watches issued during February 2007

	SUI	V		IOM	N		-	TUE			٧	VED)		Т	HU		F	RI		S	АТ	
									-					1			2			3			П
4			5	Tr		6		E		7		E		8			9			10			
11			12	L		13		ъ		14		<u>r</u>		15			16			17			
\vdash																							
18			19			20				21				22			23	D		24			
25			26			27				28)												
											D												

LEGEND

HIGH POLLUTION ADVISORIES

A = PM-10 High Pollution Advisory B = PM-2.5 High Pollution Advisory C = Ozone High Pollution Advisory

HEALTH WATCHES

D = PM-10 Health Watch E = PM-2.5 Health Watch F = Ozone Health Watch

Calendar of Meteorological Conditions observed in Metro Phoenix during February 2007

	SUN		N	ЛОN			Т	UE		W	'ED		Т	HU		F	RI		SAT	
												1			2			3		
4		5		E		6			7			8		E	9		E	10	В	
11	В	12				13		В	14	A	В	15			16			17		
			A	В	-		D	В						E			E B			
18		19	A	ь		20		В	21			22			23	D	E	24		
25		26				27			28											
							D		0	D										

LEGEND

ELECTROMETEORS

 \mathbf{A} = Thunderstorm

HYDROMETEORS

B = Rain/Drizzle/Snow

C = Fog

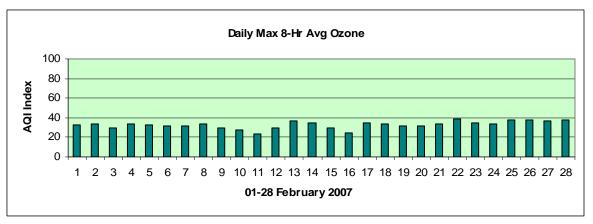
LITHOMETEORS

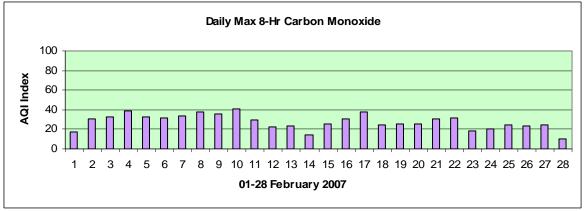
 \mathbf{D} = Blowing Dust

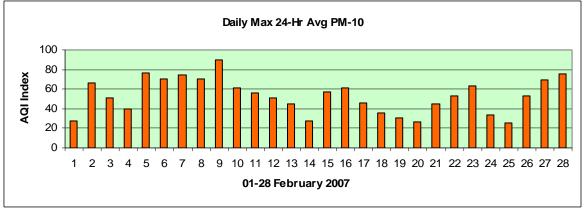
 $\mathbf{E} = \text{Haze (vsby } < 10\text{SM)}$

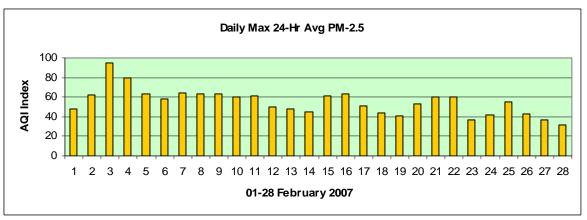
 $\mathbf{F} = \mathbf{Smoke}$

Exceedance days of	during F	FEB 200	07-			
	Total=		Date	Max AQI	<u>Pollutant</u>	Site/s
Health Watches is	sued du	ring FE	EB 2007-			
,	Total=	5	Date	Max AQI	Pollutant	Site/s
			02/05	63	PM-2.5	Phoenix Supersite
			02/06	58	PM-2.5	Phoenix Supersite
			02/07	64	PM-2.5	Durango
			02/23	63	PM-10	West Forty Third
			00/00	— -		TTT . TO
			02/28	76	PM-10	West Forty Third
			02/28	76	PM-10	West Forty Third
III-la Dallacian Ad	1	1			PM-10	West Forty Third
			during FE	EB 2007-		·
	lvisories Total=				PM-10 Pollutant	West Forty Third Site/s
			during FE	EB 2007-		·
	Total=	0	during FE Date	EB 2007- <u>Max AQI</u>		·
	Total=	0 Days i	during FE Date	EB 2007- Max AQI d category:		Site/s
	Total=	Days i	during FE Date in the Goo in the Mod	EB 2007- Max AQI d category: lerate category:	<u>Pollutant</u>	Site/s 6 22
High Pollution Ad	Total=	Days i	during FE Date In the Goo in the Mod in the Unh	EB 2007- Max AQI d category: lerate category:	Pollutant Etive Groups categor	Site/s 6 22









Narrative:

Beneficial weather conditions during most of February 2007 assisted greatly with local air quality; no exceedances of any of the criteria pollutants occurred during the month – only the second month since October 2005 that falls into that category. There were seven days with rainfall and five trough/frontal passages. Since fine (PM-2.5) and coarse (PM-10) particles are the pollutants of concern during February, the soil stabilization provided by precipitation – and favorable dispersion offered by increased mixing depths and winds associated with fronts – allowed only one significant pollution episode to occur. That episode lasted from the 2nd thru the 9th as a high pressure ridge built over the state in the wake of an upper level low passage on January 31. Daytime temperatures that rose from the lower 60's on the 2nd to the lower 80's on the 5th contributed to an increasingly stagnant air mass. Between the 3rd and the 9th local dispersion was marginal or poor on five days and steep surface-based inversion were present from the 4th thru the 9th. PM-2.5 and PM-10 concentrations peaked on the 3rd and 9th, respectively, and levels of both pollutants reached the upper-moderate range of the Air Quality Index during the episode. Hazy conditions were prevalent thru the period with visibilities at some local airports in the 5-6 mile range at times. Fortunately, this trend was interrupted on the 11th by the first in a series of trough passages that was accompanied by rainfall. From the 12th thru the 28th of the month particle pollutants levels were in the good range of the Air Quality Index the majority of the time. Meanwhile, ozone and carbon monoxide levels were in the good range every day. -Reith